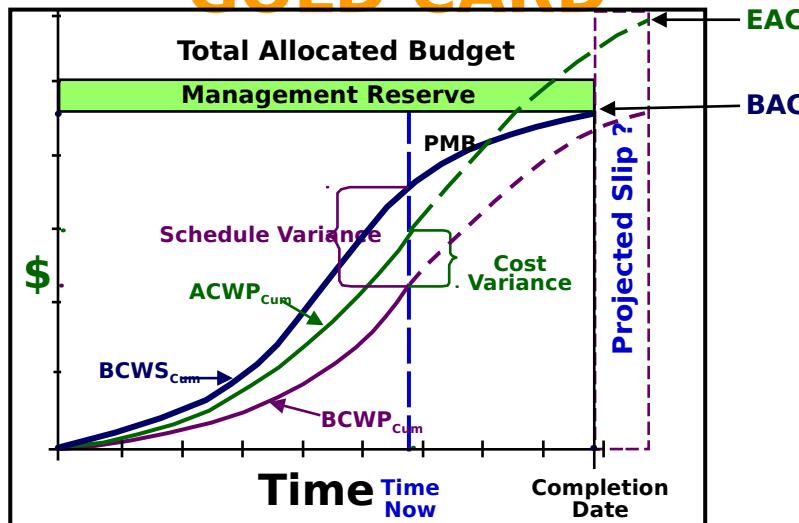


# EARNED VALUE MANAGEMENT

## 'GOLD CARD'



**VARIANCES** Positive is Favorable, Negative is Unfavorable

$$\text{Cost Variance} = \text{CV} = \frac{\text{BCWP}}{\text{ACWP}}$$

$$\text{CV \%} = (\text{CV} / \text{BAC}) * 100$$

$$\text{Schedule Variance} = \text{SV} = \frac{\text{BCWP}}{\text{BCWS}}$$

$$\text{SV \%} = (\text{SV} / \text{BAC}) * 100$$

$$\text{Cost Efficiency Completion} = \frac{\text{BCWP}}{\text{ACWP}}$$

$$\text{Favorable is } > 1.0 \text{ Unfavorable is } < 1.0$$

$$\text{Schedule Efficiency} = \text{SPI} = \frac{\text{BCWP}}{\text{BCWS}}$$

$$\text{Favorable is } > 1.0 \text{ Unfavorable is } < 1.0$$

$$\text{BASELINE EXECUTION INDEX (BEI)} = \frac{\text{ACWP}}{\text{BAC}}$$

$$\text{Favorable is } > 1.0 \text{ Unfavorable is } < 1.0$$

$$\text{Hit Task \%} = 100 * (\text{Tasks Completed ON or PRIOR to Baseline Finish} / \text{Tasks Baseline to Finish})$$

$$\text{ESTIMATE @ COMPLETION} = \text{ACTUALS TO DATE} + [(\text{REMAINING WORK}) / (\text{PERFORMANCE FACTOR})]$$

$$\text{EAC}_{\text{CPI}} = \text{ACWP}_{\text{CUM}} + [(\text{BAC} - \text{BCWP}_{\text{CUM}}) / \text{CPI}_{\text{CUM}}]$$

$$\text{EAC}_{\text{Composite}} = \text{ACWP}_{\text{CUM}} + [(\text{BAC} - \text{BCWP}_{\text{CUM}}) / (\text{CPI}_{\text{CUM}} * \text{SPI}_{\text{CUM}})]$$

$$\text{TO COMPLETE PERFORMANCE INDEX (TCPI) \$ #}$$

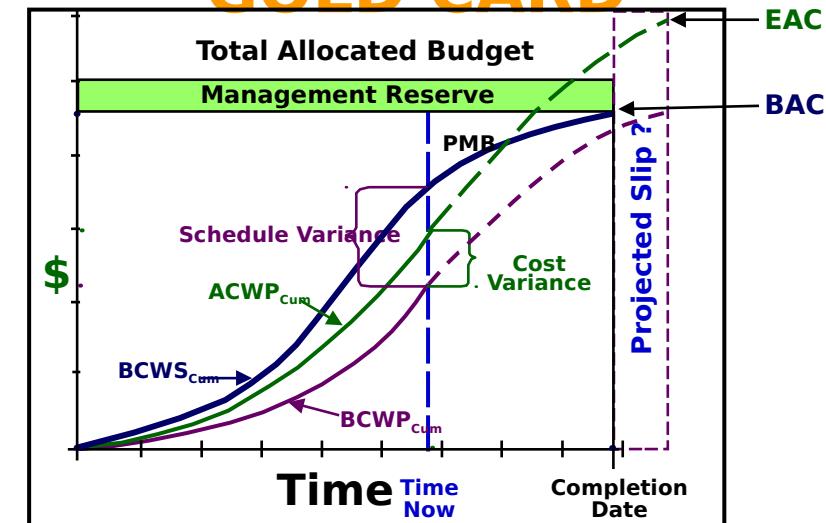
$$\text{TCPI}_{\text{Target}} = \text{Work Remaining} / \text{Cost Remaining} = (\text{BAC} - \text{BCWP}_{\text{CUM}}) / (\text{Target} - \text{ACWP}_{\text{CUM}})$$

$$\$ \text{ To Determine the TCPI }$$

$$\text{Substitute TARGET with BAC, LRF, or}$$

# EARNED VALUE MANAGEMENT

## 'GOLD CARD'



**VARIANCES** Positive is Favorable, Negative is Unfavorable

$$\text{Cost Variance} = \text{CV} = \frac{\text{BCWP}}{\text{ACWP}}$$

$$\text{CV \%} = (\text{CV} / \text{BAC}) * 100$$

$$\text{Schedule Variance} = \text{SV} = \frac{\text{BCWP}}{\text{BCWS}}$$

$$\text{SV \%} = (\text{SV} / \text{BAC}) * 100$$

$$\text{Cost Efficiency Completion} = \frac{\text{BCWP}}{\text{ACWP}}$$

$$\text{Favorable is } > 1.0 \text{ Unfavorable is } < 1.0$$

$$\text{Schedule Efficiency} = \text{SPI} = \frac{\text{BCWP}}{\text{BCWS}}$$

$$\text{Favorable is } > 1.0 \text{ Unfavorable is } < 1.0$$

$$\text{BASELINE EXECUTION INDEX (BEI)} = \frac{\text{ACWP}}{\text{BAC}}$$

$$\text{Favorable is } > 1.0 \text{ Unfavorable is } < 1.0$$

$$\text{Hit Task \%} = 100 * (\text{Tasks Completed ON or PRIOR to Baseline Finish} / \text{Tasks Baseline to Finish})$$

$$\text{ESTIMATE @ COMPLETION} = \text{ACTUALS TO DATE} + [(\text{REMAINING WORK}) / (\text{PERFORMANCE FACTOR})]$$

$$\text{EAC}_{\text{CPI}} = \text{ACWP}_{\text{CUM}} + [(\text{BAC} - \text{BCWP}_{\text{CUM}}) / \text{CPI}_{\text{CUM}}]$$

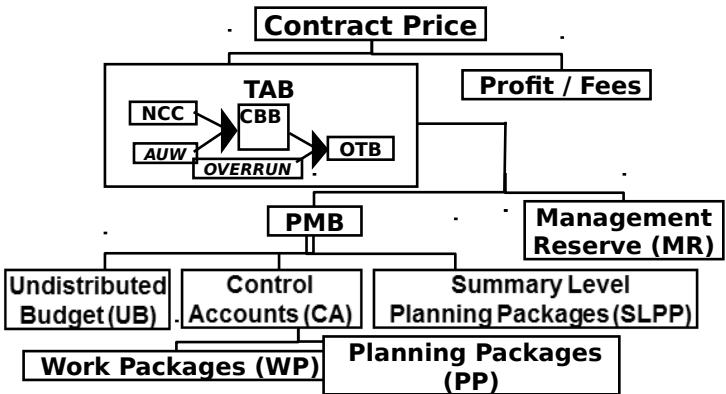
$$\text{EAC}_{\text{Composite}} = \text{ACWP}_{\text{CUM}} + [(\text{BAC} - \text{BCWP}_{\text{CUM}}) / (\text{CPI}_{\text{CUM}} * \text{SPI}_{\text{CUM}})]$$

$$\text{TO COMPLETE PERFORMANCE INDEX (TCPI) \$ #}$$

$$\text{TCPI}_{\text{Target}} = \text{Work Remaining} / \text{Cost Remaining} = (\text{BAC} - \text{BCWP}_{\text{CUM}}) / (\text{Target} - \text{ACWP}_{\text{CUM}})$$

$$\$ \text{ To Determine the TCPI }$$

$$\text{Substitute TARGET with BAC, LRF, or}$$



## ACRONYMS

<b>ACWP</b>	Actual Cost of Work Performed incurred in accomplishing work performed	Cost actually = <b>ACTUAL COST</b>
<b>AUW</b>	Authorized Unpriced Work Work contractually approved, but not yet negotiated / definitized	
<b>BAC</b>	Budget At Completion Total budget for total contract thru any given level	
<b>BCWP</b>	Budgeted Cost for Work Performed completed work in terms of the work's assigned budget	Value of = <b>EARNED</b>
<b>VALUE</b>		
<b>BCWS</b>	Budgeted Cost for Work Scheduled Budget Plan for work currently scheduled	Time-phased = <b>PLANNED</b>
<b>CA</b>	Control Account & control scope / schedule / budget	Lowest CWBS element assigned to a single focal point to plan
<b>CBB</b>	Contract Budget Base	Sum of NCC & AUW
<b>EAC</b>	Estimate At Completion generated by Ktr, PMO, DCMA, etc.	Estimate of total <b>Cost</b> for total contract thru any given level = <b>EAC<sub>Ktr / PMO / DCMA</sub></b>
<b>LRE</b>	Latest Revised Estimate	Ktr's EAC or <b>EAC<sub>Ktr</sub></b>
<b>MR</b>	Management Reserve	Budget withheld by Ktr PM for unknowns / risk management
<b>NCC</b>	Negotiated Contract Cost	Contract <b>Price</b> Minus profit or fee(s)
<b>OTB</b>	Over Target Baseline	Sum of CBB + additional budget approved for remaining work
<b>PAC</b>	Price At Completion	EAC Plus Adjusted Profit or Fee(s)
<b>PMB</b>	Performance Measurement Baseline	Contract time-phased budget plan
<b>PP</b>	Planning Package	Far-term CA activities not yet defined into WPs
<b>SLPP</b>	Summary Level Planning Package	Far-term contract activities not yet defined into CAs
<b>TAB</b>	Total Allocated Budget	Sum of all budgets for work on contract = NCC, CBB, or OTB
<b>TCPI</b>	To Complete Performance Index	Efficiency needed from 'time now' to achieve a Cost Target = <b>BAC, LRE, or EAC</b>
<b>UB</b>	Undistributed Budget	Broadly defined activities not yet distributed to CAs or SLPPs
<b>WP</b>	Work Package	Near-term, detail-planned activities within a CA

## EVM POLICY: *Interim DoDI 5000.02, Enclosure 1. Table 8.*

EVMS in accordance with ANSI/EIA-748 is required for cost or incentive contracts, subcontracts, intra-government work agreements, & other agreements valued  $\geq \$20M$  (TY \$). Contracts  $\geq \$50M$  (TY \$) require that the EVMS be formally validated by the cognizant contracting officer.

EVM is discouraged on Firm-Fixed Price, Time & Material Contracts, & LOE activities regardless of cost.

Refer to the IPMR Implementation Guide for IPMR Tailoring Guidance.

DoD's EVM CONTRACTING REQUIREMENTS:

DFARS CLAUSES

"NOTICE OF EVMS" FOR SOLICITATIONS

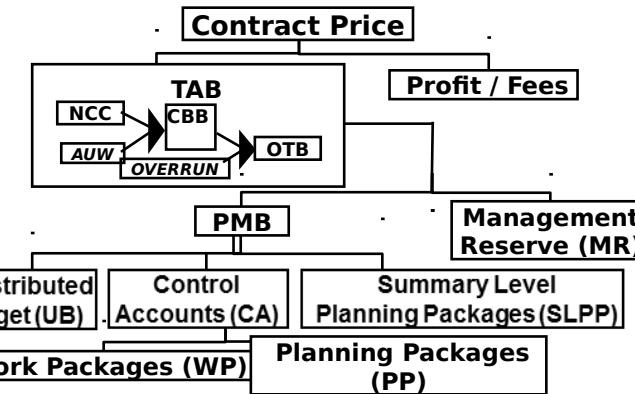
<https://acc.dau.mil/evm>

eMail Address:

EVM.dau@dau.mil

Revised January 2014

252.234-7001



## ACRONYMS

<b>ACWP</b>	Actual Cost of Work Performed incurred in accomplishing work performed	Cost actually = <b>ACTUAL COST</b>
<b>AUW</b>	Authorized Unpriced Work Work contractually approved, but not yet negotiated / definitized	
<b>BAC</b>	Budget At Completion Total budget for total contract thru any given level	
<b>BCWP</b>	Budgeted Cost for Work Performed completed work in terms of the work's assigned budget	Value of = <b>EARNED</b>
<b>VALUE</b>		
<b>BCWS</b>	Budgeted Cost for Work Scheduled Budget Plan for work currently scheduled	Time-phased = <b>PLANNED</b>
<b>CA</b>	Control Account & control scope / schedule / budget	Lowest CWBS element assigned to a single focal point to plan
<b>CBB</b>	Contract Budget Base	Sum of NCC & AUW
<b>EAC</b>	Estimate At Completion generated by Ktr, PMO, DCMA, etc.	Estimate of total <b>Cost</b> for total contract thru any given level = <b>EAC<sub>Ktr / PMO / DCMA</sub></b>
<b>LRE</b>	Latest Revised Estimate	Ktr's EAC or <b>EAC<sub>Ktr</sub></b>
<b>MR</b>	Management Reserve	Budget withheld by Ktr PM for unknowns / risk management
<b>NCC</b>	Negotiated Contract Cost	Contract <b>Price</b> Minus profit or fee(s)
<b>OTB</b>	Over Target Baseline	Sum of CBB + additional budget approved for remaining work
<b>PAC</b>	Price At Completion	EAC Plus Adjusted Profit or Fee(s)
<b>PMB</b>	Performance Measurement Baseline	Contract time-phased budget plan
<b>PP</b>	Planning Package	Far-term CA activities not yet defined into WPs
<b>SLPP</b>	Summary Level Planning Package	Far-term contract activities not yet defined into CAs
<b>TAB</b>	Total Allocated Budget	Sum of all budgets for work on contract = NCC, CBB, or OTB
<b>TCPI</b>	To Complete Performance Index	Efficiency needed from 'time now' to achieve a Cost Target = <b>BAC, LRE, or EAC</b>
<b>UB</b>	Undistributed Budget	Broadly defined activities not yet distributed to CAs or SLPPs
<b>WP</b>	Work Package	Near-term, detail-planned activities within a CA

## EVM POLICY: *Interim DoDI 5000.02, Enclosure 1. Table 8.*

EVMS in accordance with ANSI/EIA-748 is required for cost or incentive contracts, subcontracts, intra-government work agreements, & other agreements valued  $\geq \$20M$  (TY \$). Contracts  $\geq \$50M$  (TY \$) require that the EVMS be formally validated by the cognizant contracting officer.

EVM is discouraged on Firm-Fixed Price, Time & Material Contracts, & LOE activities regardless of cost.

Refer to the IPMR Implementation Guide for IPMR Tailoring Guidance.

DoD's EVM CONTRACTING REQUIREMENTS:

DFARS CLAUSES

"NOTICE OF EVMS" FOR SOLICITATIONS

<https://acc.dau.mil/evm>

eMail Address:

EVM.dau@dau.mil

Revised January 2014

252.234-7001